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The role of adverse childhood experiences, self control and Dark Triad in the development of criminal behaviour. Correlative and differential aspects

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ABSTRACT

This research consists of two studies that aimed primarily on identifying the links between adverse childhood experiences, the level of self-control, the „dark” personality traits, and also their relationship with criminal behaviour. In the first study we aimed to establish a relationship between all the variables. A sample of 232 psychology students participated in the research. They reported that they experienced a number of emotional adverse events in their childhood, and these events were positively associated with low levels of self-control and dark personality traits. The second study aimed to replicate the results obtained in the first study. Furthermore, we want to see the differences related to these variables between inmates and psychology students. In this study participated 87 inmates and 87 psychology students. The results showed that inmates predominantly experienced adverse childhood events of a physical nature, while students predominantly experienced adverse emotional events. It has been shown that psychopathy has been positively associated with offending behavior and the high frequency of adverse childhood events. The low level of self-control has been positively associated with adverse childhood events and negative personality traits. Further studies are needed in order to establish students' sensitivity thresholds in relation to adverse childhood events and to clarify the impact these events have had on students.

Keywords: *adverse childhood experiences, self-control, accentuated personality traits, offenders, criminal behavior*

1. INTRODUCTION

Despite the efforts of specialists to find the causes of deviant behavior, the results are diverse and social-historically determined. In this study we assumed that childhood adverse events are at the root of criminal behavior, by their intrusive nature and by their long-term effects. The negative experiences in childhood start with either an uncaring family who is indifferent to the child's needs, or with an environment unfit for the healthy development of the child, or a precarious education, which is valueless or based on false values.

Our study is an attempt to link the adverse events experienced in childhood to current events that have probably been lived dramatically. The present research comprises two studies. The first involves students who will become psychologists, and the second involves the inmates from two prisons and a group of students.

The crime equation still includes unknown terms, but each research approach is yet another step in deciphering this equation.

Consequences of childhood experiences

Generally, exposure to adverse childhood experiences tends to predispose the young person to engage in similar events by accumulating negative effects that imply degradation in development and functioning in most of the areas they will go through in life. Numerous studies have shown that traumas suffered in childhood are associated with criminal behavior (Dierkhising et al., 2013). Moreover, children who have been exposed to an abusive environment are more likely to suffer multiple forms of trauma in their youth and adulthood (Abram et al., 2004).

Campbell, Walker, & Egede (2016) conducted a study in the United States with a sample of approximately 49,000 adults from five different states. The study sought to investigate whether adverse childhood events are predictors of risk-taking in adolescence.

The results of the study showed that at least half of the participants reported at least one adverse childhood event while about a quarter of the participants reported more than four adverse events in childhood. At the same time, the authors of this study found that people who experienced adverse events in their childhood tend to take a lot of risks such as starting smoking, drinking, drugs in adolescence or adult life.

Criminal behavior is more common in people reporting childhood maltreatment (Teague, Mazerolle, Legosz, & Sandersons, 2008). Delinquency is strongly associated with parental separation or divorce (Amato, 2001). Burt, Barnes, McGue and Iacono (2008) have shown in a study that adopted children are inclined to criminal behavior due to parental divorce rather than to genetic

factors. The incarceration of parents has proven to be a predisposing factor for delinquent acts and other maladaptive behaviors (Murray & Farrington, 2008). Exposure to domestic violence leads to involvement in criminal acts and to internalization and externalization behaviors (Grevstad, 2010).

Howell et al. (2016) conducted a study with a sample of 2244 Swedish young adults, identifying strong relationships between certain forms of childhood abuse and current involvement in criminal behavior. Through a hierarchical regression analysis, the authors managed to capture the predictive level of each type of negative childhood experience on criminal behavior. This study highlights the impact of each type of event on the subsequent evolution of children. Thus, we consider that:

H1. Young offenders experienced more frequent adverse events in childhood than students.

Measurement of adverse childhood events

The instrument for measuring childhood adverse events used in this study was based on a research by Sacks, Murphey, & Moore (2014) on childhood adverse experiences as potential traumatic events that may have long-lasting negative effects on the health and well-being of individuals. The study was part of a nationwide survey conducted by the United States Institute for Child Health between 2011-2012. The items collected from the three questionnaires were translated into Romanian and sent for retroversion to a specialist. After making the corrections, their final form was determined.

Our instrument is based on the Adverse Childhood Experiences (ACE) questionnaire (Felitti et al., 1998) which includes in its original version 10 items, one for each of the 10 types of adverse experiences: emotional abuse, physical abuse, sexual abuse, physical neglect, separation from parents, acts of violence against the mother, overuse of alcohol or drug abuse, psychological illness or suicide attempt of a family member, and imprisonment of a family member. The answers are dichotomous (yes or no), and each affirmative answer scores one point. Finkelhor et al. (2013) extended this instrument, adding a number of adverse experiences, of which we took two: lack of material support from the family and lack of support from outside the family. Moreover, each item of the 12 was supplemented so that a questionnaire was obtained with 44 items distributed in 12 subscales. For example, for the Physical Neglect subscale the following items were formulated: 1. There were days when I had nothing to eat; 2. The house where we lived was bad, old, corrupted; 3. My parents did not take me to a doctor if I was sick; 4. I had nothing to dress with. For 11 of the 12 subclasses, four variants of response were

established on a four-step Likert scale, where 0 - never, 3 - always. For the separation of parents, the four items are the following: 1. My parents divorced; 2. I was separated from my parents; 3. I had at least one stepparent; 4. One of my parents died, and the answers were 0 - no, 1 - yes.

Another set of items was taken from the Polivictimization Scale. This was used by Finkelhor, Ormrod, & Turner in 2009 in a study on the effect of childhood adverse events on children and young people. The study involved 1,467 children and young people who were interviewed by telephone on 33 types of adverse experiences. Study results have shown that identifying adverse childhood events is extremely important and is a means of identifying vulnerable individuals facing other possible traumatic events.

Thus, the questionnaire we elaborated includes 44 items as follows: two for emotional abuse, two for physical abuse, four for sexual abuse, four for a history of addiction or mental illness, four for a family history of violence, four for emotional neglect, four for physical neglect, four for family conflict, four for family law problems, four for lack of support inside the family, and four for lack of support outside the family. Example item: *"Has one of your parents or an adult in the family been insulting you, addressing rude words or humiliating you?"*.

Adverse childhood experiences and self-control theory

Sociologists have identified various ways to control criminal behavior. There are a variety of possible types of control. Of course, the legal system is the formal method, which aims to control crime and violence through fear of legal sanctions and consequences.

However, a multitude of non-legal mechanisms help to control unwanted behavior, such as approval, respect and affection for family, teachers and friends. The extent to which people are "free to deviate" varies depending on whether or not this control is exercised in the social environment and the fact that people exist and manifest themselves in different environments. Self-control is linked to a multitude of behaviors. Empirical research has shown that people with a high level of self-control are better able to control their thoughts, regulate their emotions and inhibit their impulses (Baumeister, Bratslavsky, Muraven, & Tice, 1998). At the same time, they are more academically or professionally successful, and have high quality interpersonal relationships and a high level of well-being (Tangney, Baumeister, & Boone, 2004).

A low level of self-control is associated with many societal problems, including substance abuse, crime, procrastination, and obesity (Vohs & Faber, 2007).

The study of self-control has attracted many researchers in the fields of social psychology, clinical psychology, developmental psychology, health psychology, criminology, sociology, or the medical sciences.

Self-control tends to postpone short-term personal benefits for personal and collective long-term interests. Crimes and infractions can help to achieve universal human wishes, but only at the risk of long-term goals (avoidance of punishment, ability to achieve conventional achievements such as education and employment, interpersonal relationships).

Thus, those with lower levels of self-control, under equal circumstances, are more likely to behave violently, commit crimes or participate in criminal acts than those with higher levels of self-control. Those with higher levels of self-control tend to have relatively high success rates in school and work, and lasting interpersonal relationships (Opre, 2007).

Self-control helps to explain that a multitude of delinquencies, crimes and other problematic behaviors seem to go hand in hand. Interpersonal violence, theft, drug use, accidents, and bad behavior at school are often linked. Acts related to these issues provide a certain immediate benefit to the author (money, pleasure, end of a problematic controversy), just like many other behaviors. But each of them has the potential for negative consequences for the author or other people. What differentiates people is not the fact that such acts can provide benefits, but some usually ignore potential costs and do them in any case. Thus, the theory of self-control is sometimes considered a theory of "restriction", a theory that focuses on why people do not participate in crime, rather than why they do it.

The theory of self-control argues that differences between people, in their tendency to ignore long-term costs, appear to be established in childhood and, once established, tend to persist throughout their lives. The theory of self-control implies that human nature includes the general tendency to achieve individual needs and desires (Pinel, 2010).

If left unregulated, self-control causes an inevitable conflict with others and, due to this circumstance, there will be potentially damaging consequences for the author. As a result, those who take care of the child's long-term interests must educate the child so as to limit the pursuit of their own interests, taking into account the needs and wishes of others. By virtue of self-control theory, this process involves socialization. As the child develops, his caregivers (parents, other relatives, friends, neighbors, and school) penalize his selfish behavior. Children are taught to pay attention to the long-term consequences of their actions. When an adult caregiver is present in the child's environment and plays an active role in socializing, there are high levels of self-control that seem to become a stable feature of that person.

However, on some occasions, such early care is not present in the child's environment. There are also differences between groups and even between nations regarding the level and duration of this socialization process. It is believed that these differences lead to other differences in levels of crime, violence and other problematic behaviors between people, communities and different time contexts. This is the nature of socialization in early childhood that produces differences in crime rates, and not of differences between people in regards to motivation for crime or cultural values or beliefs related to crime (Opre, 2007).

H.2 Adverse childhood experiences are positively associated with low self-control.

The theories of control differ from most theories of crime and violence.

Gottfredson & Hirschi (2003) describe how socialization of young people generates self-control:

- 1) Parental affection for a child establishes a long-term interest in the success of the child;
- 2) This allows for a style of education characterized by positive efforts to track the behavior and to sanction the deviation in an appropriate way;
- 3) Self-control is born;
- 4) This is expressed by the child's affection towards the father and by logical extension to other social institutions such as schools and friends. This model implies that social bonds between parents and children and self-control of the child will be very difficult to separate empirically and, under certain circumstances, may lead to the same thing (Attkinson et al., 2002).

Self-control is related to a wide range of behaviors. Empirical research shows that people with high levels of self-control are more able to control their thoughts, regulate their emotions and inhibit their impulses than people with low self-control (Baumeister, Bratslavsky, Muraven, & Tice, 1998). They enjoy a better psychological well-being, more academic success, and better interpersonal relationships (Mischel, Shoda, & Peake, 1988).

An increased level of self-control is relevant to almost all forms of behavior that lead to a successful and healthy life. Instead, it is assumed that a low level of self-control is at the heart of many such societal problems. In view of its beneficial effects on human functioning, self-control is considered a distinctive sign of adaptation (Mischel, Cantor, & Feldman, 1996; Rothbaum, Weisz, & Snyder, 1982; Vohs & Baumeister, 2004) and has become a prominent concept in various fields of research in psychology and other disciplines.

Although there is considerable dissent in the literature on how to name, define and measure the concept of self-control (Duckworth & Kern, 2011), theories agree that self-control can be defined as the ability to modify or ignore trends (Bandura, 1989; Carver & Scheier, 1982; Metcalfe & Mischel, 1999; Rothbaum et al., 1982; Vohs & Baumeister, 2004). Since self-control includes impulse regulation, researchers often equate a low level of self-control with an impulsive character, although in fact the power of impulse and of self-control contributes independently to adopt or not a specific behavior (Duckworth & Kern, 2011; Duckworth & Seligman, 2005; Tangney et al., 2004). Researchers agree that self-control focuses on the efforts that people exert to stimulate desired responses and inhibits unwanted responses, thus self-control is an important condition for self-regulation (Baumeister, Heatherton, & Tice, 1994; Carver & Scheier, 1998; Baumeister, 2000; Tangney et al., 2004). Researchers distinguish between state self-control and dispositional self-control (Tangney et al., 2004).

State self-control varies depending on the situation and time. The empirical evidence confirms that people's ability to exercise self-control is susceptible to situational influences, including previous self-control attempts (Baumeister et al., 1998; Muraven & Baumeister, 2000), moods (Fishbach & Labroo, Baumeister, Shmueli, & Muraven, 2007), memory capacity (Hofmann, Gschwendner, Friese, Wiers, & Schmitt, 2008; Schmeichel, 2007) and motivation (Muraven, 2007).

Dispositional self-control is considered to be relatively stable depending on situations and time; people with a high level of self-control are better than others to control impulses (Rothbart, Ellis, Rueda, & Posner, 2003). Similarly, compared to people with low levels of self-control, people with a high level of self-control report less substance abuse, psychopathology, dietary disfunctions, physical and verbal aggression (Tangney et al., 2004), greater inhibition of negative emotional responses (Kieras, Tobin, Graziano, & Rothbart, 2005). In contrast, children with low levels of self-control had lower academic performance 10 years later than those with a high level of self-control (Mischel et al., 1988). Adolescents with low self-control engage in more health risk behaviors such as increased alcohol, tobacco and marijuana use as well as saturated fats (Wills et al., 2001; Wills, Isasi, Mendoza, & Ainette, 2007; Wills, Walker, Mendoza, & Ainette, 2006). Adults with a low level of self-control are more often involved in deviant behaviors, including risky driving, without wearing seat belts, always resorting to force and fraud (Pratt & Cullen, 2000; Vazsonyi, Pickering, Junger, & Helsing, 2001).

H3. Young offenders have lower levels of self-control than students.

Adverse childhood experiences and the Dark Triad

Subclinic narcissism, machiavellianism and psychopathy are found under the name of Dark Triad (Paulhus & Williams, 2002) due to their socially undesirable nature, similar phenotypic behavior (eg. manipulation) and conceptual similarities (eg. ego centers). Narcissism is a tendency to have grandiose and exaggerated views about one's own person, while people around are devalued. It is noted that narcissists tend to manifest extreme vanity, seek admiration and attention, express feelings of superiority, authority, and claim rights, prefer exhibitionism and praise (Raskin & Terry, 1988). Machiavellism is the individual's tendency to be cynical, mischievous, cold, pragmatic, to display immoral beliefs such as the love of power and material goods, to plan long-term manipulation tactics (Christie & Geis, 1970; Fehr, Samsom, & Paulhus, 1992; Rauthmann & Will, 2011). Psychopathy is a tendency to impulsively seek a desire, manipulation and manifestation of antisocial behaviors (Williams, Nathanson, & Paulhus, 2003), which often fall into a primary component such as affective detachment, lack of empathy and remorse, superficiality, charm and manipulation and a secondary component such as social deviation, low socialization, impulsivity, irresponsibility, aggression, sensation seeking, and delinquency (Hare, 2003).

Children who have experienced abuse and neglect are at increased risk for a number of problematic developmental outcomes, including learning problems, problems relating to peers, internalizing symptoms, and externalizing symptoms (Petersen & Felt, 2014). As adults, these children are more likely to suffer physical health problems, to develop mood disorders (Widom et al., 2012) and psychopathologies (Clark et al., 2010). They are also more likely to be involved in criminal activity (Currie & Tekin, 2012), which is consistent with the observation that children with maltreatment experiences are often impaired in their prosocial and ethical behavior development (Koenig et al., 2004). As such, we consider that maltreatment experiences influence an individual's development of "enduring patterns of thoughts, feelings, and behaviors" (Roberts et al., 2006, p. 1), which define personality traits.

H4. Adverse childhood experiences are positively associated with accentuated personality traits.

There is evidence in the literature that shows that narcissism, machiavelism, and psychopathy are strongly nuanced variants of "dark" personality factors. On the other hand, "discrimination theories" conceive narcissism, machiavelism and psychopathy as separate domains (Jones & Paulhus, 2010; Vernon, Villani, Vickers, & Harris, 2008.). The characteristics of the Dark Triad differ in their

biological bases, and basic dynamics as well as models of association with other constructs.

The Dark Triad features may overlap in some short term aspects (Jonason & Webster, 2010), while others, such as self-monitoring, remain independent (Rauthmann, 2011). The dark personalities are considered to be toxic and antagonistic by sharing an exploitative behavioural style, oriented towards struggle for purposes, for benefits, without taking into account the common well-being of others (Jones & Paulhus, 2010.) Therefore, the behavior of dark personalities in society is often marked by manipulative behaviors (Paulhus & Williams, 2002), the darker ones have strong behaviors to overcome other people and diminished behaviors in the community that prevent the manifestation of empathy, which reflects their somewhat antisocial character.

H5. Young offenders present a more prominent form of accentuated personality traits compared to students.

Flexon, Meldru, Young, & Lehmann (2016) conducted a study to discover the prediction power of the three facets of the accentuated personality in developing aggressive behavior, substance use and victimization. The study was conducted in the United States on a sample of 397 people, of whom 50% were men and 50% were women. The authors concluded that the three facets of the accentuated personality play a very important role in predicting the development of aggressive behavior. In the same study, it was discovered that Machiavellism and Psychopathy correlate with each other and tend to act as a single variable, while Narcissism does not correlate negatively with self-control.

DeLisi et al. (2018) conducted a study in the United States with a sample of 728 students. The authors investigated whether self-control and psychopathy correlate positively and whether they predict deviant behavior. The results of the study show that psychopathy does not positively correlate with the development of delinquent behavior. In contrast, the low level of self-control strongly correlated with the development of delinquent behavior. At the same time, in the same study, the authors made a hierarchy of the two factors depending on their predictive level. Self-control has been shown to be linked to most of the delinquent behavior.

H6. The low level of self-control is positively associated with accentuated personality traits.

2. METHODOLOGY

Sample and procedure

This research is materialized in two studies. The first study aims to capture the accentuated personality traits of psychology students and their links with childhood adverse experiences and the level of self-control. The second study aims to replicate the results of the first study, as well as to identify differences on the variables investigated between a group of criminals and a group of students.

Instruments

Both studies involved data collection with the same instruments.

Measurement of adverse childhood events

Our questionnaire includes 44 items as follows: two for emotional abuse, two for physical abuse, four for sexual abuse, four for a history of addiction or mental illness, four for a family history of violence, four for emotional neglect, four for physical neglect, four for family conflicts, four for family law problems, four for lack of support inside the family, and four for lack of support outside the family. Example item: "Has one of your parents or an adult in the family been insulting you, addressing you with rude words or humiliating you?". Responses are offered on a four-step Likert scale where 0 - never and 3 - very often. Items 26, 27, 28, 29, 30, 31 have only two variants, 0 - No and 1 - Yes. When analyzing the internal consistency, a Cronbach Alpha $\alpha = .91$ coefficient was obtained in both studies.

Dark Triad, Short Form (Jones & Paulhus, 2014) (The Short Dark Triad, SD3).

The scale was developed by Jones and Paulhus in 2014 and contains 27 items, nine for each of the three subscales: Machiavellism, Narcissism, Psychopathy. Responses are offered on a five-steps Likert scale, where 1 - strong disagreement and 5 - strong agreement. Example item: "I

like to avenge authorities". When analyzing the internal consistency, a Cronbach Alpha $\alpha = .82$ coefficient was obtained in study 1 and $\alpha = .79$ in study 2 respectively.

Self-Control Scale (Grasmick et al., 1993)

The scale was built in 1993 by Grasmick and his collaborators. It includes 24 items, four for each of the six characteristics of the autocontrol described by Gottfredson and Hirschi in 1990. The six features are operationalized on a four-step Likert scale where 1 - not at all true and 4 - always true. Example item: "I often try to avoid projects that I know will be difficult." When analyzing the internal consistency, a Cronbach Alpha $\alpha = .86$ coefficient was obtained in study 1 and, respectively, .80 in study 2.

Study 1

Participants and procedure

The participants of the study were 232 psychology students aged between 18 and 30, $M = 20.65$, $AS = 1.82$, of which 50 male and 182 females. The questionnaires were distributed online together with informed consent forms. There were 250 students surveyed, and 232 sets of complete answers were finally retained.

Results and discussions

Participants' responses for the Adverse Childhood Experiences were mostly below the average level regarding the negative events experienced until the age of 18 years. The highest scores were recorded in the lack of support outside family $M = 2.63$, $SD = 2.53$ and emotional abuse $M = 2.04$, $SD = 1.69$ and the lowest at physical neglect $M = .54$, $SD = 1.22$ and sexual abuse $M = .69$, $SD = 1.82$. Thus, students experienced to a very limited extent sexual abuse and physical neglect, but to a greater extent emotional abuse and lack of support from friends, colleagues, teachers or other people outside the family (Table 1).

Table 1. Means and standard deviations for Adverse Childhood Experiences ($N = 232$)

	Min.	Max.	M	SD
Emotional abuse	0	6	2.04	1.69
Physical abuse	0	6	1.05	1.38
Sexual abuse	0	12	.69	1.83
History of addictions and mental illnesses	0	9	1.31	1.77
History of family violence	0	12	1.21	2.08
Emotional neglect	0	12	1.97	2.62
Physical neglect	0	9	.54	1.22
Family conflicts (negative parental model)	0	9	1.74	1.64
Death or desaease of a family member	0	10	1.79	2.03
Family law problems	0	12	.83	1.45
Lack of support from outside family	0	12	2.63	2.53
Lack of material suport from inside family	0	12	1.11	1.84

For Self-Control Questionnaire, the scores obtained by the participants were also below the average level. The highest score was obtained at the impulsivity subscale $M = 7.99$, SD

$= 2.31$, and the lowest score at the temper subscale $M = 6.63$, $SD = 2.05$ (Table 2).

Table 2. Means and standard deviations for Self-Control Questionnaire ($N = 232$)

	Min.	Max.	M	SD
Impulsivity	4	16	7.99	2.31
Simple tasks	4	16	7.06	2.60
Risk seeking	4	16	7.28	2.88
Physical activities	4	16	7.23	2.51
Self-centered	4	14	6.73	1.96
Temper	4	13	6.63	2.05

For Dark Triad the scores were relatively low. Thus, the highest score was for narcissism $M = 26.4$, $SD = 5.38$ and

the lowest score was for psychopathy $M = 16.59$, $SD = 4.80$ (Table 3).

Table 3. Means and standard deviations for Dark Triad ($N = 232$)

	Min.	Max.	M	SD
Machiavellianism	10	45	26.13	6.18
Narcissism	9	42	26.40	5.38
Psychopathy	9	33	16.59	4.80

In study 1 we will test the hypothesis H2, H4, and H6.

H.2 Adverse childhood experiences are positively associated with low self-control.

Analysing risk seeking, we noted that the strongest link lies between risk seeking and family law problems, $r = .24$, $p < .01$, $r^2 = .06$, followed by emotional neglect, $r = .20$, $p < .01$, $r^2 = .04$, death or disease of a family member, $r = .17$, $p < .05$, $r^2 = .03$, physical abuse, $r = .16$, $p < .05$, $r^2 = .03$ (Table 4).

Table 4. Correlations between Adverse Childhood Experiences and Risk seeking as a Self-Control subscale ($N = 232$)

Spearman rho		1	2	3	4	5	6	Risk seeking
1. Physical abuse	rho	1						
2. History of addictions and mental illnesses	rho	.25**	1					
3. Emotional neglect	rho	.36**	.36**	1				
4. Death or disease of a family member	rho	.13*	.32**	.25**	1			
5. Family law problems	rho	.22**	.31**	.31**	.38**	1		
6. Lack of material support from inside family	rho	.19**	.29**	.22**	.13	.21**	1	
Risk seeking	rho	.16*	.14*	.20**	.17*	.24**	.15*	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Analysing correlations between adverse childhood experiences and self-centered we observed that the strongest link is between self-centered and family law

problems $r = .27$, $p < .01$, $r^2 = .07$, followed by the lack of material support inside family, $r = .19$, $p < .01$, $r^2 = .04$ and physical neglect, $r = .18$, $p < .01$, $r^2 = .03$ (Table 5).

Table 5. Correlations between Adverse Childhood Experiences and Self-centered as a Self-Control subscale ($N = 232$)

Spearman rho		1	2	3	4	Self-centered
1. History of addictions and mental illnesses	Rho	1				
2. Physical abuse	Rho	.20**	1			
3. Family law problems	Rho	.31**	.12	1		
4. Lack of material support from inside family	Rho	.29**	.32**	.21**	1	
Self-centered	Rho	.15*	.18**	.27**	.19**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

H4. Adverse childhood experiences are positively associated with accentuated personality traits.

It is noted that Machiavellianism is positively associated with physical neglect, $r = .18$, $p < .01$, $r^2 = .03$, with lack of family support, $r = .18$, $p < .01$, $r^2 = .03$ and lack of support from outside the family, $r = .15$, $p < .05$, $r^2 = .02$ (Table 6).

Table 6. *Correlations between Adverse Childhood Experiences and Machiavellianism (N = 232)*

Spearman rho		1	2	3	Machiavellianism
1. Physical neglect	rho	1			
2. Lack of support outside family	rho	.19**	1		
3. Lack of material support from inside family	rho	.32**	.31**	1	
Machiavellianism	rho	.18**	.15*	.18**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

It can be noticed that psychopathy is positively associated stronger with physical neglect, $r = .21$, $p < .01$, $r^2 = .04$ and with family law problems, $r = .21$, $p < .01$, $r^2 = .04$ and weaker

with emotional neglect, $r = .17$, $p < .05$, $r^2 = .03$ and with the lack of support outside the family $r = .15$, $p < .05$, $r^2 = .02$ (Table 7).

Table 7. *Correlations between Adverse Childhood Experiences and Psychopathy (N = 232)*

Spearman rho		1	2	3	4	Psychopathy
1. Emotional neglect	Rho	1				
2. Physical neglect	rho	.13*	1			
3. Family law problems	rho	.31**	.12	1		
4. Lack of material support from inside family	rho	.48**	.19**	.23**	1	
Psychopathy	rho	.17*	.21**	.21**	.15*	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

H6. The low level of self-control is positively associated with accentuated personality traits.

Positive associations have been observed between Machiavellianism and self-centered, $r = .30$, $p < .01$, $r^2 = .09$, Machiavellianism and temper $r = .27$, $p < .01$, $r^2 = .07$, Machiavellianism and simple tasks $r = .24$, $p < .01$, $r^2 = .06$, Machiavellianism and impulsivity $r = .21$, $p < .01$, $r^2 = .04$, and Machiavellianism and risk seeking $r = .20$, $p < .01$, $r^2 = .04$.

Also, positive associations have been found between narcissism and risk seeking, $r = .22$, $p < .01$, $r^2 = .04$ and narcissism and physical activity $r = .22$, $p < .01$, $r^2 = .04$. The strongest positive associations lie between psychopathy and the six facets of self-control, namely risk seeking $r = .50$, $p < .01$, $r^2 = .25$, self-center $r = .30$, $p < .01$, $r^2 = .09$, impulsivity $r = .28$, $p < .01$, $r^2 = .08$, simple tasks $r = .18$, $p < .05$, $r^2 = .03$.

.01, $r^2 = .03$, physical activity $r = .17$, $p < .01$, $r^2 = .03$ and temper $r = .15$, $p < .01$, $r^2 = .02$ (Table 8).

Table 8. *Correlations between Dark Triad accentuated personality traits and Self-Control (N = 232)*

Spearman rho		1	2	3	4	5	6	M	N	P
1. Impulsivity	rho	1								
2. Simple tasks	rho	.28**	1							
3. Risk seeking	rho	.41**	.07	1						
4. Physical activities	rho	.26**	.15*	.30**	1					
5. Self-centered	rho	.11	.23**	.20**	.22**	1				
6. Temper	rho	.09	.19**	.07	.05	.16*	1			
Machiavellianism	rho	.21**	.24**	.20**	.08	.30**	.27**	1		
Narcissism	rho	.09	-.07	.22**	.22**	.11	-.04	.29**	1	
Psychopathy	rho	.28**	.18**	.50**	.17*	.30**	.15*	.50**	.36**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

This study aimed to identify the links between adverse childhood experiences, the level of self-control and the accentuated personality traits in psychology students.

The results showed that the low level of self-control, with its subscale of risk seeking, is closely related to family law problems, emotional neglect, death or illness of a family member, and physical abuse as forms of childhood adverse experiences. At the same time, students reported frequent events such as lack of support from outside the family, emotional abuse, emotional neglect, death or illness of a family member, and negative parental model. Also, in terms of self-control, students have high scores in risk-seeking, preference for simple tasks and physical activity, and impulsivity.

Self-centered as a form of low self-control is associated with family law problems, lack of material support from the family, and physical neglect. These results reflect the consequences that certain childhood experiences may have on the subsequent behaviors of individuals, even if they do not necessarily become criminal behaviors. Self-centered as a form of low self-control is a way of trying to cope with subsequent events similar to those experienced in the past.

The links between machiavellianism and physical neglect, lack of family support and lack of support outside the family lead to the conclusion that personality is modeled during the individual's existence so as to prevent the experimentation of new adverse events, considering that machiavellianism consists of a particular ability or at least a desire to

manipulate others and to "read their thoughts". At the same time, people with a high level of machiavellianism have a kind of emotional detachment and a less emotional involvement in relationships with others. This emotional disconnection is probably nothing more than a form of escape, a refuse to totally participate in relationships. Both physical neglect and lack of support perceived in childhood can therefore lead to a diminished form of the manifestation of emotions and to the construction of masks that people find useful in dealing with others.

Psychopathy as an accentuated personality trait is associated with physical neglect, family law problems, emotional neglect and lack of support from outside the family. Considering that in this context psychopathy is characterized by a controlled impulsivity, the search for strong sensations, anxiety, and a low level of empathy explains to a certain extent the effects that child negative experiences have on the present behaviors. This means that lack of support from both family and friends can leave the person vulnerable and exposed to different dangers.

In conclusion, both machiavellianism and narcissism, but also psychopathy have close links with the low level of self-control manifested by self-centered, impulsivity and risk seeking. The low level of empathy observed among students may be strictly declarative, which would explain the links with machiavellianism. Also, impulsivity and risk seeking associated with psychopathy can be behavioral gates through which negative energies are eliminated.

Study 2

Participants and procedure

In this study participated 174 persons, 55 men and 119 women aged 18-30 years, $M = 23.68$, $SD = 3.62$. Of these, 87 are students and 87 are incarcerated in two Romanian prisons.

For the research group, information emails were sent to students communicating the purpose of the research and the conditions for participation. For students who have expressed their willingness to participate in the survey, questionnaires, including the informed consent form, have been delivered online. For the group of inmates, a project was developed to obtain the formal agreement from the Ethics Commission of the University of Bucharest. After obtaining the ethical agreement for the research and after fulfilling all the necessary conditions imposed by the National Administration of Penitentiaries, a number of 100 questionnaires were printed to be completed in pencil-paper version by inmates. The group of detainees consisted of men from the Jilava Penitentiary and women from the Targor Penitentiary. They have completed and signed informed consent forms and agreement to participate in the

research. After completing the questionnaires, 87 questionnaires were collected. For the groups equivalence, only 87 questionnaires completed online by students were taken into account when establishing the group of students.

The group inclusion criterion was the age, between 18 and 30 years. After attending the study, detainees received 3 credits as a reward for their participation.

Results and discussions

For Adverse Childhood Experiences, the scores obtained by the participants were below average $M = 18.74$, $SD = 15.91$. The means and standard deviations on each subscale of the questionnaire were as follows: for emotional abuse $M = 1.5$, $SD = 1.63$, for physical abuse $M = 1.06$, $SD = 1.54$, sexual abuse $M = .74$, $SD = 1.85$, for history of addictions or mental illness $M = 1.03$, $SD = 1.58$, for history of family violence $M = 1.17$, $SD = 2.34$, for emotional neglect $M = 2.38$, $SD = 3.23$, for physical neglect $M = 1.20$, $SD = 2.20$, for negative parental model $M = 1.66$, $SD = 1.98$, for death or disease of a family member $M = 2.14$, $SD = 2.18$, for family law problems $M = 1.61$, $SD = 2.41$, for lack of support outside the family $M = 2.43$, $SD = 2.2$, for lack of material support from family $M = 1.82$, $SD = 2.57$ (Table 9).

Table 9. Means and standard deviations for Adverse Childhood Experiences ($N = 174$)

	Min.	Max.	M	SD	Skewness	Kurtosis
Emotional abuse	0	6	1.50	1.63	1.139	.580
Physical abuse	0	6	1.06	1.54	1.731	2.448
Sexual abuse	0	12	.74	1.85	3.984	18.318
History of addictions and mental illnesses	0	9	1.03	1.58	2.051	4.888
History of family violence	0	12	1.17	2.34	2.991	9.851
Emotional neglect	0	12	2.38	3.23	1.746	2.488
Physical neglect	0	12	1.20	2.20	2.723	8.335
Family conflicts (negative parental model)	0	9	1.66	1.98	1.406	1.444
Death or disease of a family member	0	10	2.14	2.18	1.406	2.206
Family law problems	0	12	1.61	2.41	2.258	5.788
Lack of support from outside family	0	12	2.43	2.28	1.301	2.171
Lack of material support from inside family	0	12	1.82	2.57	1.955	4.162

For Self-Control Questionnaire the mean scores obtained by the participants are below the average level. For impulsivity $M = 8.22$, $SD = 2.53$, for simple tasks $M = 7.30$, $SD = 3.01$, for risk seeking $M = 7.02$, $SD = 2.86$, for physical activities $M = 8.35$, $SD = 3.05$, for self-centered $M = 7.28$, $SD = 2.59$, and for temper $M = 6.51$, $SD = 2.72$ (Table 10).

For Dark Triad the scores obtained by the participants are below the average level. For Machiavellianism $M = 25.72$, $SD = 7.17$, for narcissism $M = 26.94$, $SD = 4.86$, and for psychopathy $M = 19.01$, $SD = 6.16$ (Table 11).

Table 10. Means and standard deviations for Self-Control Questionnaire (N = 174)

	Min.	Max.	M	SD	Skewness	Kurtosis
Impulsivity	4	16	8.22	2.53	.832	.511
Simple tasks	4	16	7.30	3.01	.956	.130
Risk seeking	4	16	7.02	2.86	1.170	.998
Physical activities	4	16	8.35	3.05	.889	.273
Self-centered	4	15	7.28	2.59	.979	.496
Temper	4	16	6.51	2.72	1.306	1.253

Table 11. Means and standard deviations for Dark Triad (N = 174)

	Min.	Max.	M	SD	Skewness	Kurtosis
Machiavellianism	9	45	25.72	7.17	.060	-.175
Narcissism	13	42	26.94	4.86	.168	.042
Psychopathy	9	37	19.01	6.16	.752	-.264

In study 2 we will test the hypothesis H1, H3, and H5.

We will also test the hypothesis H2, H4, and H6 only for the offenders group (H2b, H4b, H6b).

H1. Young offenders experienced more frequent adverse events in childhood than students.

Significant differences were observed for six of the 12 types of childhood adverse experiences, meaning that students reported more emotional experiences than offenders (Table 12). On the other hand, offenders reported more frequent family law problems and lack of material support from the family.

It is noticed that there are differences in the experience of adverse childhood events between the two groups, in the sense that the group of students report more frequent certain events while the group of offenders reports different types of adverse events. Thus, students report more frequently emotional abuse $U = 2291.5$, $p < .05$, $r^2 = .13$, physical abuse $U = 3181.5$, $p < .05$, $r^2 = .02$, and sexual abuse $U = 2942.5$, $p < .05$, $r^2 = .06$, while offenders report more frequently family law problems $U = 2577.5$, $p < .05$, $r^2 = .09$ and lack of family material support $U = 2789.5$, $p < .05$, $r^2 = .06$ (Table 13).

Table 12. Mean ranks and sums of ranks for Adverse Childhood Experiences depending on group type (N = 174)

	Group type	N	Mean Rank	Sum of Ranks
Emotional abuse	Students	87	104.66	9105.50
	Offenders	87	70.34	6119.50
	Total	174		
Physical abuse	Students	87	94.43	8215.50
	Offenders	87	80.57	7009.50
	Total	174		
Sexual abuse	Students	87	97.18	8454.50
	Offenders	87	77.82	6770.50
	Total	174		
Family law problems	Students	87	73.63	6405.50
	Offenders	87	101.37	8819.50
	Total	174		
Lack of support from outside family	Students	87	91.74	7981.50
	Offenders	87	83.26	7243.50
	Total	174		
Lack of material support from inside family	Students	87	76.06	6617.50
	Offenders	87	98.94	8607.50
	Total	174		

Table 13. *Mann-Whitney test for Adverse Childhood Experiences depending on group type (N = 174)*

	Emotional abuse	Physical abuse	Sexual abuse	Family law problems	Lack of support from outside family	Lack of material support from inside family
Mann-Whitney U	2291.500	3181.500	2942.500	2577.500	3415.500	2789.500
Wilcoxon W	6119.500	7009.500	6770.500	6405.500	7243.500	6617.500
Z	-4.653	-1.968	-3.183	-3.867	-1.128	-3.162
Asymp. Sig. (2-tailed)	.000	.049	.001	.000	.259	.002

The above figures lead to the conclusion that this hypothesis is partly supported by the data analyzed as there are adverse childhood events that students say have experienced more frequently than offenders, but there are also events that offenders declare to have experienced more frequently than students. In general, students are more affected by emotional experiences, and offenders by physical experiences.

H3. Young offenders have lower levels of self-control than students.

It was taken into account that in this situation the condition of normality of data distribution is respected, skewness and kurtosis being within the statistically accepted limits.

Table 14. *Means and standard deviations for Self-Control Scale depending on group type (N = 174)*

	Group type	N	M	SD	SE.
Impulsivity	Students	87	8.16	2.39	.256
	Offenders	87	8.28	2.68	.287
Simple tasks	Students	87	6.92	2.80	.300
	Offenders	87	7.69	3.18	.341
Risk seeking	Students	87	7.33	2.91	.312
	Offenders	87	6.70	2.78	.298
Physical activities	Students	87	7.21	2.19	.235
	Offenders	87	9.49	3.35	.359
Self-centered	Students	87	6.97	2.04	.219
	Offenders	87	7.59	3.03	.324
Temper	Students	87	6.14	2.19	.235
	Offenders	87	6.87	3.13	.335

Table 15. *Independent samples t-test for differences in self-control levels depending on group types (N = 174)*

		F	Sig.	t	Df	Sig.	MD	SED	95% Confidence interval of the difference	
									Lower	Upper
Physical activities	Equal variance assumed	19.571	.000	-5.330	172	.000	-2.287	.429	-3.134	-1.440
	Equal variance not assumed			-5.330	148.108	.000	-2.287	.429	-3.135	-1.439

extent that the preference for physical activity is an important aspect of self-control.

H5. Young offenders present a more prominent form of accentuated personality traits compared to students.

Table 16. Means and standard deviations for Dark Triad depending on group type (N = 174)

	Group type	N	M	SD	ES
Machiavellianism	Students	87	26.30	5.72	.614
	Offenders	87	25.14	8.37	.898
Narcissism	Students	87	27.38	5.25	.563
	Offenders	87	26.51	4.43	.474
Psychopathy	Students	87	17.06	5.19	.557
	Offenders	87	20.95	6.46	.693

Table 17. Independent samples t-test for differences in accentuated personality traits depending on group type (N = 174)

		F	Sig.	t	df	Sig.	MD	SED	95% Confidence interval of the difference	
									Lower	Upper
Psychopathy	Equal variance assumed	8.038	.005	-4.383	172	.000	-3.897	.889	-5.651	-2.142
	Equal variance not assumed			-4.383	164.356	.000	-3.897	.889	-5.652	-2.141

It can be noticed that among the three facets of the accentuated personality (Table 16), only psychopathy presents higher scores in offenders than in students, $t = 4.383$, $df = 172$, $p < .05$, $d = .66$ (Table 17).

H2b. Adverse childhood experiences are positively associated with low self-control in offenders.

Table 18. Spearman correlations between adverse childhood experiences (1 – 6) and self-control (N = 87)

Spearman rho	1	2	3	4	5	6	A1	A2	A3	A4	A5	A6
1. Emotional abuse	Rho 1											
2. Physical abuse	Rho .78**	1										
3. Sexual abuse	Rho .15	.16	1									
4. History of addictions and mental illnesses	Rho .33**	.25*	.18	1								
5. Family violence history	Rho .62**	.51**	.19	.36**	1							
6. Emotional neglect	Rho .26*	.14	.19	.28**	.45**	1						
Impulsivity	Rho .24*	.21	.23*	.06	.18	.10	1					
Simple tasks	Rho .19	.18	.01	.01	.30**	.19	.40**	1				
Risk seeking	Rho .11	.03	.32**	.23*	.18	.05	.26*	.20	1			
Physical activities	Rho .10	.22*	.05	.07	.11	-.02	.43**	.51**	.29**	1		
Self-centered	Rho .13	.23*	.36**	.21	.26*	.15	.50**	.32**	.38**	.50**	1	
Temper	Rho .41**	.45**	.24*	.16	.38**	.22*	.43**	.35**	.26*	.35**	.51**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

It is noticed that temper is positively associated with physical abuse $r = .45$, $p < .01$, $r^2 = .20$, with emotional abuse $r = .41$, $p < .01$, $r^2 = .17$, with history of family violence $r = .38$, $p < .01$, $r^2 = .14$, with sexual abuse $r = .24$, $p < .05$, $r^2 = .06$, and with emotional neglect $r = .22$, $p < .05$, $r^2 = .05$.

Self-centered is associated with sexual abuse $r = .36$, $p < .01$, $r^2 = .13$, with family violence history $r = .26$, $p < .05$, $r^2 = .07$, and with physical abuse $r = .23$, $p < .01$, $r^2 = .05$.

Physical activity is positively associated with physical abuse $r = .22$, $p < .05$, $r^2 = .05$. Risk seeking is positively associated with sexual abuse $r = .32$, $p < .01$, $r^2 = .10$ and with history of addictions and mental illnesses $r = .23$, $p < .05$, $r^2 = .05$.

Simple tasks is positively associated with family violence history $r = .30$, $p < .01$, $r^2 = .09$. Impulsivity is positively associated with emotional abuse $r = .24$, $p < .05$, $r^2 = .06$ and with sexual abuse $r = .23$, $p < .05$, $r^2 = .05$ (Table 18).

The preference for simple tasks is positively associated with physical neglect $r = .38$, $p < .01$, $r^2 = .14$ and with lack of family support $r = .35$, $p < .01$, $r^2 = .12$.

Risk seeking is positively associated with physical neglect $r = .23$, $p < .05$, $r^2 = .05$.

The preference for physical activities is positively associated with physical neglect $r = .25$, $p < .05$, $r^2 = .06$ and with death or disease of a family member $r = .23$, $p < .05$, $r^2 = .05$. Self-centered is positively associated with family law problems $r = .33$, $p < .01$, $r^2 = .11$, and with negative parental model $r = .28$, $p < .01$, $r^2 = .08$.

Temper is positively associated with family law problems $r = .34$, $p < .01$, $r^2 = .12$, with negative parental model $r = .30$, $p < .01$, $r^2 = .09$, with lack of family support $r = .30$, $p < .01$, $r^2 = .09$, and with physical neglect $r = .21$, $p < .05$, $r^2 = .04$ (Table 19).

Table 19. *Spearman correlations between adverse childhood experiences (7 – 12) and self-control (N = 87)*

Spearman rho		7	8	9	10	11	12	A7	A8	A9	A10	A11	A12
7. Physical neglect	Rho	1											
8. Negative parental model	Rho	.32**	1										
9. Death or disease of a family member	Rho	.23*	.20	1									
10. Family law problems	Rho	.29**	.31**	.13	1								
11. Lack of support from outside family	Rho	.24*	.17	.15	.12	1							
12. Lack of material support from family	Rho	.44**	.18	.26*	.16	.15	1						
Impulsivity	Rho	.16	.03	.01	.19	.10	.13	1					
Simple tasks	Rho	.38**	.09	.12	.25*	.19	.35**	.40**	1				
Risk seeking	Rho	.23*	.17	-.06	.19	.01	.11	.26*	.20	1			
Physical activities	Rho	.25*	.11	.23*	.21	.04	.17	.43**	.51**	.29**	1		
Self-centered	Rho	.15	.28**	.04	.33**	.04	.02	.50**	.32**	.38**	.50**	1	
Temper	Rho	.21*	.30**	.07	.34**	.15	.30**	.43**	.35**	.26*	.35**	.51**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

H4b. Adverse childhood experiences are positively associated with accentuated personality traits in offenders.

For the first six types of adverse childhood experiences it is noted that Machiavellianism is positively associated with emotional abuse $r = .24$, $p < .05$, $r^2 = .06$, with sexual abuse $r = .23$, $p < .05$, $r^2 = .05$ and with history of addictions and mental diseases $r = .22$, $p < .05$, $r^2 = .05$. Narcissism is positively associated with sexual abuse $r = .22$, $p < .05$, $r^2 = .05$. Psychopathy is positively associated with physical abuse $r = .37$, $p < .01$, $r^2 = .14$, with emotional abuse $r = .35$, $p < .01$, $r^2 = .12$, with emotional neglect $r = .33$, $p < .01$, $r^2 =$

.11, with sexual abuse $r = .30$, $p < .01$, $r^2 = .09$, and with family violence history $r = .23$, $p < .05$, $r^2 = .05$ (Table 20).

For the following six types of adverse childhood experiences, it is noted that Machiavellianism is positively associated with negative parental model $r = .22$, $p < .05$, $r^2 = .05$. Narcissism does not associate with any of these six types of adverse experiences. Psychopathy is positively associated with family law problems $r = .34$, $p < .01$, $r^2 = .12$, and with physical neglect $r = .28$, $p < .05$, $r^2 = .08$ (Table 21).

Table 20. *Spearman correlations between adverse childhood experiences (1 – 6) and accentuated personality traits Dark Triad (N = 87)*

Spearman rho		1	2	3	4	5	6	M	N	P
1. Emotional abuse	rho	1								
2. Physical abuse	rho	.78**	1							
3. Sexual abuse	rho	.15	.16	1						
4. History of addictions and mental illnesses	rho	.33**	.25*	.18	1					
5. Family violence history	rho	.62**	.51**	.19	.36**	1				
6. Emotional neglect	rho	.26*	.14	.19	.28**	.45**	1			
Machiavellianism	rho	.24*	.21	.23*	.22*	.11	.00	1		
Narcissism	rho	.06	.02	.22*	.06	-.01	-.04	.43**	1	
Psychopathy	rho	.35**	.37**	.30**	.20	.23*	.33**	.41**	.21	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 21. *Spearman correlations between adverse childhood experiences (7 – 12) and accentuated personality traits Dark Triad (N = 87)*

Spearman rho		7	8	9	10	11	12	M	N	P
7. Physical neglect	rho	1								
8. Negative parental model	rho	.32**	1							
9. Death or disease of a family member	rho	.23*	.20	1						
10. Family law problems	rho	.29**	.31**	.13	1					
11. Lack of support from outside family	rho	.24*	.17	.15	.12	1				
12. Lack of material support from family	rho	.44**	.18	.26*	.16	.15	1			
Machiavellianism	rho	.06	.22*	-.01	.18	-.07	-.16	1		
Narcissism	rho	-.01	.09	.05	.12	-.01	-.05	.43**	1	
Psychopathy	rho	.28**	.16	-.09	.34**	.06	.18	.41**	.21	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

H6b. The low level of self-control is positively associated with accentuated personality traits in offenders.

It can be noticed that there are statistically significant positive associations between the analysed variables in the group of young offenders.

Thus, Machiavellianism is associated with self-centered $r = .50$, $p < .01$, $r^2 = .25$, with impulsivity $r = .40$, $p < .01$, $r^2 = .16$, with temper $r = .40$, $p < .01$, $r^2 = .16$, with physical activities $r =$

$.31$, $p < .01$, $r^2 = .10$, and with risk seeking $r = .23$, $p < .05$, $r^2 = .05$.

Narcissism is associated with self-centered $r = .36$, $p < .01$, $r^2 = .13$, physical activities $r = .26$, $p < .05$, $r^2 = .07$ and with temper $r = .25$, $p < .05$, $r^2 = .06$.

Psychopathy is associated with temper $r = .58$, $p < .01$, $r^2 = .34$, with self-centered $r = .56$, $p < .01$, $r^2 = .31$, with impulsivity $r = .45$, $p < .01$, $r^2 = .20$, and with risk seeking $r = .29$, $p < .01$, $r^2 = .08$ (Table 22).

Table 23. *Pearson correlations between accentuated personality traits Dark Triad and Self-Control (N = 87)*

		1	2	3	4	5	6	M	N	P
1. Impulsivity	Pearson	1								
2. Simple tasks	Pearson	.44**	1							
3. Risk seeking	Pearson	.15	.21	1						
4. Physical activities	Pearson	.44**	.52**	.26*	1					
5. Self-centered	Pearson	.47**	.30**	.40**	.49**	1				
6. Temper	Pearson	.38**	.25*	.24*	.29**	.58**	1			
Machiavellianism	Pearson	.40**	.15	.23*	.31**	.50**	.40**	1		
Narcissism	Pearson	.14	.19	.14	.26*	.36**	.25*	.45**	1	
Psychopathy	Pearson	.45**	.27*	.29**	.21	.56**	.58**	.43**	.20	1

3. DISCUSSIONS

This study aimed to identify the links between adverse childhood experiences, the level of self-control and the accentuated personality traits of a group of offenders, as well as of a group of psychology students. The differences between students and offenders regarding the perception of adverse childhood experiences and the relationships between adverse childhood experiences and criminal behavior were also analyzed.

Young offenders experienced more adverse childhood events than students, most often being reported family law problems and lack of material support from the family. Surprisingly, the student group reported higher scores for emotional abuse and physical abuse, which leads to the conclusion that the perception of such events differs according to the level of sensitivity of the participants. A possible further study should be done to clarify the perception of the students about the type of abuse they were exposed to.

The results highlighted the differences between offenders and students regarding the level of self-control. Although offenders obtained higher scores at all facets of the low self-control, the only significant difference was observed in the preference for physical activities, which reflects the lack of intellectual concerns among the offenders and lack of interest in personal development activities.

The level of psychopathy as an accentuated personality trait records higher rates for offenders than for students. In the context of the Dark Triad, psychopathy refers primarily to a high level of impulsivity that is commonly associated with deficits in self-control and antisocial behavior (Hare, 1991). The consequences of impulsive behavior among offenders are felt both towards those around them and towards their own person, often displaying aggressive behaviors, not only in relations with others, but also through acts of self-aggression.

There have been observed associations between the facets of low self-control and the adverse childhood experiences. The results showed that preference for simple tasks is associated with physical neglect and lack of support from the family which leads to the idea that in the absence of parental support and minimum living conditions, children (future criminals) engage in tasks that do not imply a great cognitive complexity. They prefer the simple path and choosing to elude learning and personal development every time. Also, risk-seeking and preference for physical activity is associated with physical neglect. These results have a common starting point, namely, the child's awareness of family shortcomings and the attempt to find ways to reconcile with the situation and with oneself. These ways are often undesirable and socially unacceptable. Self-centered is associated with family law problems where one can conclude that a child who witnesses serious and illegal incidents is less willing to become an altruistic and empathic adult. Thus, the adverse events in childhood predispose to building an insufficient self-control, which leads to committing risky acts that endanger both the life of the individual and those around him.

The results have highlighted the links between machiavellianism, narcissism, psychopathy and adverse childhood experiences, so machiavellianism positively associates with emotional abuse, sexual abuse, and the history of addictions or mental illnesses in the family. It follows that a child abused emotionally or sexually or who witnessed the inappropriate behaviors of addicted parents, tends to build a malleable personality to cope with their subsequent relationships and to succeed to overcome obstacles, even if they are compromising. Narcissism has been particularly associated with sexual abuse. This relationship may lead to the idea that those children who are victims of sexual abuse build a narcissistic personality pattern around them to hide the inner voids. Narcissism involves the desire to be at the center of attention and to permanently occupy an important position in the social context, an objective that can be achieved not only by

compromise but also by acts that defy the law. Psychopathy has been positively associated with physical abuse, emotional abuse, emotional neglect, sexual abuse, and the history of family violence. The results reveal the links between childhood violence and current violence. Parental patterns of abuse and neglect are taken over, internalized and refined by the victim child and transformed into aggressive tendencies and subsequent criminal behaviors.

Connections between accentuated personality traits and low levels of self-control have also been highlighted. Thus, machiavellianism has been associated with self-centered, impulsivity, preference for physical activity and risk-seeking. Young people who have built a Machiavellian personality do not necessarily have to show a high self-control, being

CONCLUSIONS

This research is an attempt to capture the underlying factors of criminal behavior, as well as the development of a personality prone to commit impulsive, aggressive and uncontrolled acts. In fact, the negative events experienced in childhood strongly impact the development of the child, being influenced by the information and models around him, and lacking access to a positive alternative to solving certain situations.

The traumatized child tends to relive adult trauma, often unbearable, which leads to a break in self-control barriers and to a slip in the area of crime. The present research, through its results, made the portrait of the offender the way he is present in the Romanian penitentiaries. Despite the fact that the offenders, both women and men, have a semi-open detention regime and enjoy some freedom between the walls of the penitentiaries and despite the psychological counseling services and the attempts to rehabilitate them socially, at the end of the punishment, these people return to the toxic environments they grew and developed in. These environments manage to remove any possibility of real rehabilitation of the offenders.

Based on these results and summing up the adverse events experienced by these people in childhood, psycho-educational programs of prevention and intervention for several age ranges can be built. Those families who do not offer children the physical and emotional care need to be attracted to such programs to further prevent the development of criminal behavior to which these children may be predisposed. At the same time young offenders who have completed their sentences can be further monitored and eventually included in long-term social rehabilitation and social reintegration programs.

especially oriented on themselves and by resorting to often impulsive, uncontrollable impulse acts that often endanger both personal and other lives. Obviously narcissism is associated with self-centeredness. Offenders even manifest, in the present context of deprivation of liberty, a form of pride and selfishness without which they believe they could not survive. Psychopathy has been associated with self-centered, impulsivity and risk-seeking, which proves that an impulsive personality that is overly active and indifferent to the needs of others is the focus of low self-control. Both personality and self-control are built over time from the models taken over and from the acquired education. Where neither role models nor education are desirable, the personality builds up poorly, and self-control does not reach the socially acceptable level.

Limitations and future research directions

One of the limits of this research refers to the level of understanding of participants in the group of offenders. Some of them were at the limit of illiteracy and were helped to complete the questionnaires. Others may not have fully understood the meaning of certain items (those with double negation).

Another limit of the study could be the difference in the application of the questionnaires in the sense that offenders completed the pencil-paper questionnaires and the students completed the online version. Also, students may have exaggerated their answers, which is why some scores, especially those from accentuated personality traits, were higher among students.

Starting from the results obtained and considering the fragile sensitivity thresholds observed in participants' responses, it would be necessary to investigate these thresholds and further clarify the constructs of emotional abuse, emotional neglect, physical abuse, and physical neglect.

Another future direction of study might be to investigate a larger group of offenders and to differentiate them according to the deed committed.

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